

1 WHAT IS CLAIMED IS

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1. A user support system for cryptographic communication comprising:

key storage means for storing keys used for deciphering;

10 deciphering means for deciphering an enciphered communication text into a deciphered communication text using a key; and

control means for starting said deciphering means only when an input communication text is the enciphered communication text and for supplying said key that is
15 necessary for the deciphering in said deciphering means by retrieving said key from said key storage means.

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2. The user support system as claimed in claim 1, which further comprises:

receiver means for receiving said input
25 communication text and for supplying said input communication text to said control means; and

output means for outputting said deciphered communication text obtained from said deciphering means,

30 said control means including means for determining whether said input communication text is the enciphered communication text or a normal communication text.

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3. The user support system as claimed in

1 claim 2, wherein said receiver means, said key storage
means, said deciphering means, said control means and
said output means form a deciphering unit.

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4. The user support system as claimed in
claim 2, which further comprises:

10 communication text storage means for storing input
communication texts when received; and

timer means for determining periodical accesses to
said communication text storage means via said control
means to retrieve the input communication text from
15 said communication text storage means if stored so that
the input communication text retrieved from said
communication text storage means is input to said
receiver means,

said communication text storage means being
20 provided for use in common within a network system to
which said user support system belongs.

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5. The user support system as claimed in
claim 2, which further comprises:

signature check means for making a signature check
with respect to said deciphered communication text
30 obtained from said deciphering means and for outputting
a signature check result,

said output means outputting said signature check
result from said signature check means.

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1 6. The user support system as claimed in
claim 5, which further comprises:

communication text storage means for storing input
communication texts when received; and

5 timer means for determining periodical accesses to
said communication text storage means via said control
means to retrieve the input communication text from
said communication text storage means if stored so that
10 the input communication text retrieved from said
communication text storage means is input to said
receiver means,

 said communication text storage means being
provided for use in common within a network system to
which said user support system belongs.

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 7. The user support system as claimed in
20 claim 6, wherein said communication text storage means
stores the deciphered communication text obtained in
said deciphering means and the signature check result
from said signature check means when the signature
exists.

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 8. The user support system as claimed in
30 claim 5, wherein said signature check means makes the
signature check while said deciphering means outputs
the deciphered communication text under a control of
said control means.

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1 9. The user support system as claimed in
claim 1, which further comprises:

 enciphering means for enciphering a communication
text into an enciphered communication text which is to
5 be transmitted using a key,

 said key storage means further storing keys used
for enciphering,

 said control means starting said enciphering means
only when an input communication text is the
10 communication text to be transmitted by a cryptographic
communication and for supplying said key that is
necessary for the enciphering in said enciphering means
by retrieving said key from said key storage means.

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 10. A user support system for cryptographic
communication in a network system in which a first
20 system and a second system are connected via an
external network, said user support system comprising:

 an enciphering unit, provided in the first system,
enciphering a communication text to be output to the
external network,

25 said enciphering unit comprising:

 a first receiver receiving the communication
text which is made in the first system and is to be
transmitted via the external network;

 a first key storage storing keys necessary
30 for a cryptographic communication;

 a first key retrieving part retrieving a key
from said first key storage based on a destination of
the communication text;

 an enciphering part enciphering the
35 communication text into an enciphered communication
text using the key retrieved by said key retrieving
part; and

1 a first transmitter transmitting the
enciphered communication text from said enciphering
part to the external network.

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11. The user support system as claimed in
claim 10, wherein the first system forms an internal
10 network system, and said enciphering unit is provided
in an arbitrary equipment within the internal network
system.

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12. The user support system as claimed in
claim 11, wherein said arbitrary equipment is selected
from a group consisting of a terminal equipment within
20 the internal network system, and a network connecting
equipment within the internal network system and
connecting the first system to the external network.

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13. The user support system as claimed in
claim 10, wherein the first system forms an internal
network system, said enciphering unit is provided in a
30 network connecting equipment connecting the first
system to the external network, and said enciphering
unit automatically enciphers all communication texts
output from the first system to the external network.

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1 14. The user support system as claimed in
claim 10, wherein said first key storage stores a
common key that is used in common within the first
system, and said enciphering unit automatically
5 enciphers the communication text using the common key.

10 15. The user support system as claimed in
claim 10, which further comprises:

 a deciphering unit, provided in the second system,
deciphering the enciphered communication text input via
the external network,

15 said deciphering unit comprising:

 a second receiver receiving a communication
text input via the external network;

 a deciphered mail extracting part determining
whether the communication text received by said second
20 receiver is an enciphered communication text or a
normal communication text and extracting the enciphered
communication text;

 a second key storage storing keys necessary
for the cryptographic communication;

25 a second key retrieving part retrieving from
said second key storage a key that is necessary for
deciphering the enciphered communication text when said
deciphered mail extracting part extracts the enciphered
communication text;

30 a deciphering part deciphering the enciphered
communication text into a deciphered communication text
using the key retrieved by said second key retrieving
part; and

 a second transmitter transmitting the
35 deciphered communication text from said deciphering
part to a destination of the deciphered communication
text within the second system.

1 16. A user support system for cryptographic
communication in a network system in which a first
system and a second system are connected via an
external network, said user support system comprising:
5 a deciphering unit, provided in the second system,
deciphering the enciphered communication text input via
the external network,
 said deciphering unit comprising:
 a receiver receiving a communication text
10 input via the external network;
 a deciphered mail extracting part determining
whether the communication text received by said
receiver is an enciphered communication text or a
normal communication text and extracting the enciphered
15 communication text;
 a key storage storing keys necessary for the
cryptographic communication;
 a key retrieving part retrieving from said
key storage a key that is necessary for deciphering the
20 enciphered communication text when said deciphered mail
extracting part extracts the enciphered communication
text;
 a deciphering part deciphering the enciphered
communication text into a deciphered communication text
25 using the key retrieved by said key retrieving part;
and
 a transmitter transmitting the deciphered
communication text from said deciphering part to a
destination of the deciphered communication text within
30 the second system.

35 17. The user support system as claimed in
claim 16, wherein the second system forms an internal
network system, and said deciphering unit is provided

1 in an arbitrary equipment within the internal network
system and automatically deciphers the enciphered
communication text input from the external network to
output the deciphered communication text to the
5 destination within the internal network system.

10 18. The user support system as claimed in
claim 17, wherein said arbitrary equipment is selected
from a group consisting of a terminal equipment within
the internal network system, and a network connecting
equipment within the internal network system and
15 connecting the second system to the external network.

20 19. The user support system as claimed in
claim 16, wherein the second system forms an internal
network system, said deciphering unit is provided in a
network connecting equipment connecting the second
system to the external network, and said deciphering
25 unit automatically deciphers all enciphered
communication texts input from the external network to
output the deciphered communication texts to the
destination within the internal network system.

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35 20. The user support system as claimed in
claim 16, wherein said key storage stores a common key
that is used in common within the second system, and
said deciphering unit automatically deciphers the
enciphered communication text using the common key.

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